



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/050,991

01/22/2002

Nobuaki Abe

P21599

7780

7055

7590

08/10/2005

GREENBLUM & BERNSTEIN, P.L.C.  
1950 ROLAND CLARKE PLACE  
RESTON, VA 20191

EXAMINER

SELBY, GEVELL V

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 08/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/050,991

Applicant(s)

ABE, NOBUAKI

Examiner

Gevell Selby

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23 is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-19 is/are rejected.
- 7) ☒ Claim(s) 3,20 and 21 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2002 is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Claim Objections*

2. Claims 11, 13, 17, and 19-21 are objected to because of the following informalities: The period on line 4 before the formulas should be replaced with a colon. Appropriate correction is required.

### *Double Patenting*

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1, 2, and 4-19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 2, 3, and 5-20, respectively of copending Application No. US 10/043,318. In regard to claims 1, 2, and 4-19, US 10/043,318, discloses all the claimed limitations the invention claims to comprise. US 10/043,

Art Unit: 2615

318, comprises more features than the invention claims; however that does not make the invention patentably distinct. It would have been obvious for one of ordinary skill in the art to modify 10/043,318, to have fewer features, in order to make a simpler embodiment to reduce cost and or size.

5. Claim 22 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 3 of copending Application No. US 10/043,318. In regard to claim 22, US 10/043,318, discloses an image interpolating device comprising:

an imaging device (imaging device that generates first R,G, and B signals) that has a light receiving surface on which pixels are disposed in a matrix arrangement (2 x 2 matrix), a subject image being formed on said light receiving surface to generate first color signals corresponding to said subject image in said pixels (images belonging to a first, second, and third pattern);

an interpolation processor (G-interpolation processor) that performs an interpolation process, using said first color signals generated in a plurality of adjacent pixels positioned adjacent to an objective pixel, to obtain a second color signal (second G-signal) of said objective pixel; and

a modification processor (first modification processor) that extracts a similar pixel which has the closest luminance value from pixels to that of said objective pixel, adjacent to said objective pixel, and modifies said second color signal of said objective pixel (second G-signal), based on a luminance value and color difference signals Cb and Cr of said similar pixel (first information).

Art Unit: 2615

US 10/043, 318, comprises more features than the invention claims; however that does not make the invention patentably distinct. It would have been obvious for one of ordinary skill in the art to modify 10/043,318, to have fewer features, in order to make a simpler embodiment to reduce cost and or size.

This is a provisional obviousness-type double patenting rejection.

### *Allowable Subject Matter*

6. Claim 23 is allowed.

7. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not disclose the combination of limitations claimed, specifically the limitation of: a modification processor that extracts a similar pixel which has the closest luminance value to that of said objective pixel, from pixels adjacent to said objective pixel, and modifies said second color signal or said objective pixel, based on a color signal of said objective pixel and color difference signals Cb and Cr of said similar pixel.

8. Claims 3, 20, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### *Conclusion*

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 6,611,287, discloses a camera signal processing apparatus comprising an interpolated pixel data generating device.

Art Unit: 2615

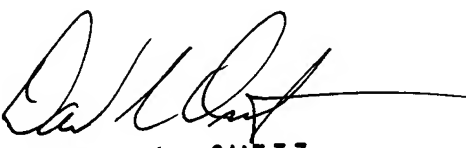
6,836,289, discloses a camera signal processing apparatus comprising an interpolation for a Bayer pattern color filtered array with red and blue interpolation using weightings as ratios of corresponding green pixel values.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gevell Selby whose telephone number is 571-272-7369. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on 571-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gvs

  
DAVID L. OMETZ  
SUPERVISORY PATENT  
EXAMINER